

User's Manual/Quick Reference Guide
for
Computer Readable Form/Checker Version 4.0 (CRF4/Checker)

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Record of Changes

SECTION 1 INTRODUCTION

1.1 What is Computer Readable Form/Checker Version 4.0?

The Computer Readable Form/Checker Version 4.0 (CRF4/Checker) system is a state-of the-art Windows NT-based software program employing a logical and intuitive user interface to validate and convert patent applications to be compliant with 37 C.F.R. 1.821 – 1.825 for both ‘old rules’ (October 1990) and ‘new rules’ (July 1998). CRF4/Checker replaces the previous DOS-based versions of CRF and Checker, and is Y2K-compliant.

CRF4 is a patent application receipt system developed by the United States Patent and Trademark Office (USPTO) that reads, verifies, and validates electronic submission data from patent applicants prior to transmission of submitted sequence listings for incorporation into the Automated Biotechnology Sequence Search (ABSS) database of pending application files. Checker allows public users to check sequence listings before submitting them to the USPTO.

1.2 Conventions for this User's Manual

Consistent visual cues and standard keyboard operations are used throughout this manual. These conventions are listed in Table 1-1.

Table 1-1 Manual Conventions

Notation	Represents	Example
	Process the command with a mouse action.	 Select Open from the file menu.
	Process the command with the keyboard.	 Type changes into the Edit field.
Bold type	Name of a function, file, menu item, or programming construct.	 Click on Exit .

SECTION 2 CHECKER REQUIREMENTS, HELP, AND ACCESS

2.1 Checker System Requirements

Checker Version 4.0 is a state-of-the-art Windows-based software application used for checking biotechnology sequence listings for compliance with format and content rules. Checker Version 3.1 validates sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) or the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 4.0 replaces the previous Microsoft Windows (Checker 3.1) and the DOS-based version of Checker. This version executes on the newest operating systems, Windows 2000 and Windows XP, and is also Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable Form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker can run on any personal computer that uses Windows 95, Windows 98, Windows Millennium Edition (ME), Windows NT, Windows 2000, or Windows XP. The recommended memory requirement for the Checker workstation is 64 MB RAM. Disk space provided should be a minimum of 10 MB for temporary storage of the unzipped setup and installation program files. In addition, disk space must be allowed for user input files and Checker output reports (a total of twice [2X] the input file size.) To save space, setup files (6MB) can be deleted after the installation of the Checker application.

2.1.1 Windows 98 Users

Users with Microsoft Windows 98 operating systems should immediately upgrade older versions of Checker installed prior to this release. Checker Version 3.1 and 4.0 contain upgraded system libraries, which Microsoft says avoid potential errors reported by some users.

2.1.2 Checker Software

To get the Checker software:

- On the USPTO Web site, click download Checker Version 4.0 software for Windows NT/ 95/98/2000/XP PCs [file size 1.3 MB], or
- Purchase a diskette from the Catalog of Patent & Trademark Products & Services section of the General Information Home Page.

2.2 Checker Help

For Checker help, call Mark Spencer at 703-308-4212, or send an e-mail to:

Mark.Spencer@uspto.gov

Please provide a description of the problem or question.

NOTE The procedure for activating MS Word line numbering, to view line numbers in a sequence listing, is included with the Checker distribution files and is automatically copied to the Checker installation folder. The name of the file is CrfMacros.doc.

2.3 Checker Access

- To access Checker,  click the **Checker** icon on your desktop.

SECTION 3 CHECKER VERSION 4.0

3.1 Checker Welcome Window

When you open the Checker application, the **Welcome** window, shown in Figure 3-1, displays. This window identifies the application and displays copyright information for the software.

☞ Click **Continue** to work in the Checker application.

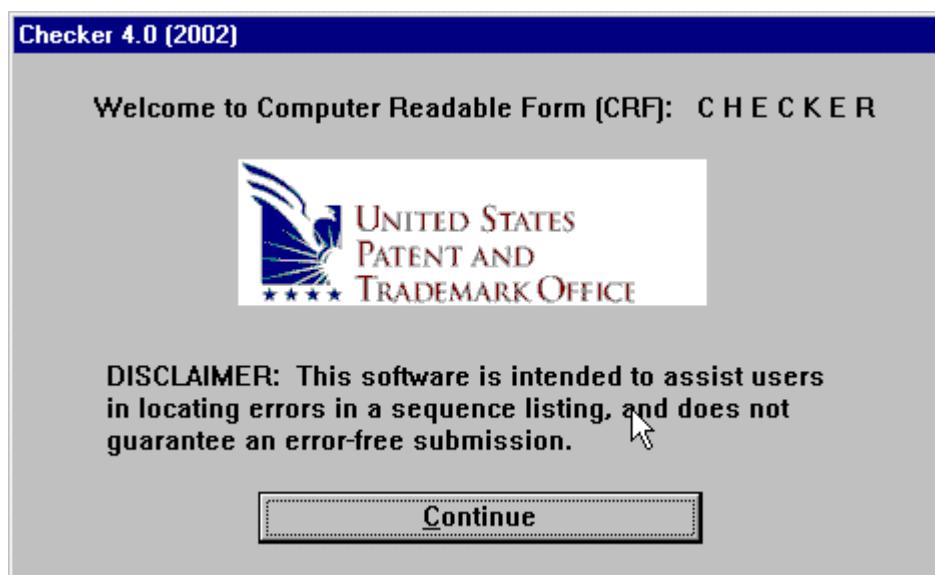


Figure 3-1 Checker Welcome Window

3.2 Checker Main Menu Window

When you open the Checker application, the Checker **Main Menu** window, shown in Figure 3-2, automatically displays.

The Checker Main Menu includes the following six buttons:

-  **Edit File**
-  **Process File**
-  **View Errors**
-  **View Report**
-  **Help Topics**
-  **Exit**

These buttons are discussed in more detail in Sections 3.2.1 through 3.2.6.

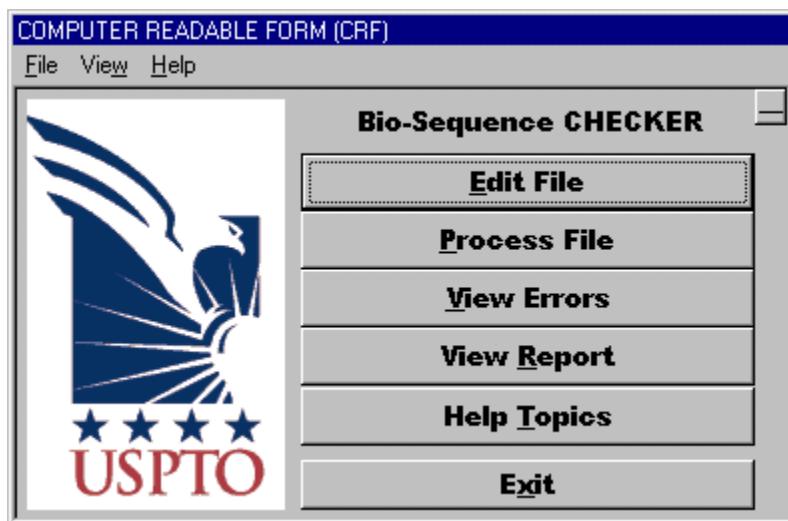


Figure 3-2 Checker Main Menu Window

3.2.1 Checker Edit File Button

To edit a file before running ‘Process File’:

1.  Click **Edit File** on the Checker **Main Menu**.
2. The Word Pad document window displays. Select **File** and then **Open** from the **Main Menu**.
The **Open** dialog box displays.

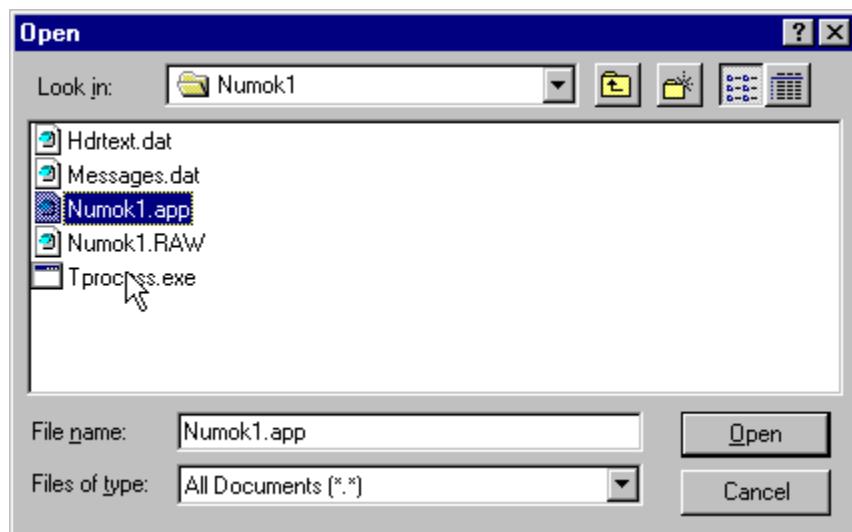


Figure 3-3 Checker Edit File Open Dialog Box

3.  Click on file to be edited.
 4.  Click **Open**.
- The file is opened in Wordpad or in the user's default editor.

To edit a file after running ‘Process File’:

1. Click **Edit File** on the Checker **Main Menu**.
2. The **WordPad** document window displays the input file that was last processed.

```

<110> Smith, John
      Smith, Jane
      Garcia Consulting

<120> Test Application Title (CCH00001)

<130> CCH01

<140> US US/1997/0001
<141> 07-MAY-1997

<160> 7

<170> PatentIn For Windows v. 1.0

<210> 1
<211> 950
<212> PRT
<213> Uca pugilator

<300>
<301> Doe, Richard
<302> Isolatioin and Characterizatioin of a Gene Encoding a

```

For Help, press F1

Figure 3-4 Checker Edit File Opened in Wordpad

5. Edit file and save.

3.2.2 Checker Process File Button

To process a file:

1. Click **Process File** on the Checker **Main Menu**.
The **Open** dialog box displays.

**Figure 3-5 Checker Process File Open Dialog Box**

2.  Click on the file to be processed.

3.  Click .

The **Progress Bar** dialog box displays.

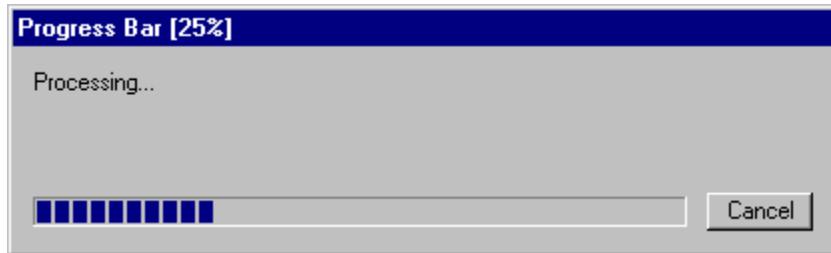


Figure 3-6 Checker Progress Bar Dialog Box

4. The Progress Bar dialog box closes when validation is complete.

If there are errors in the file, the **There Are Errors in Your File** dialog box displays.

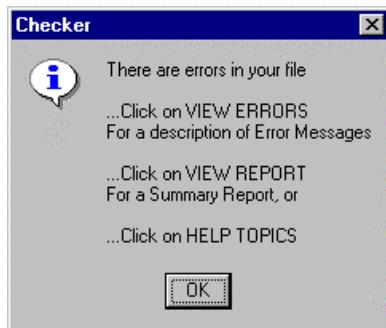


Figure 3-7 Checker There Are Errors in Your File Dialog Box

5. If there are no errors in the file, the **There Are No Errors in Your File** dialog box displays.



Figure 3-8 Checker There Are No Errors in Your File Dialog Box

6.  Click  on either dialog box.

The Checker **Main Menu** displays.

7. To view the file errors (if there are errors in your file),  click  on the Checker **Main Menu**. Please see Section 3.2.3 for more information on viewing errors.

3.2.3 Checker View Errors Button

To view errors:

 Click  on the Checker **Main Menu**.

The Errors Report, shown in Figure 3-9, is opened in Wordpad or the user's default editor.

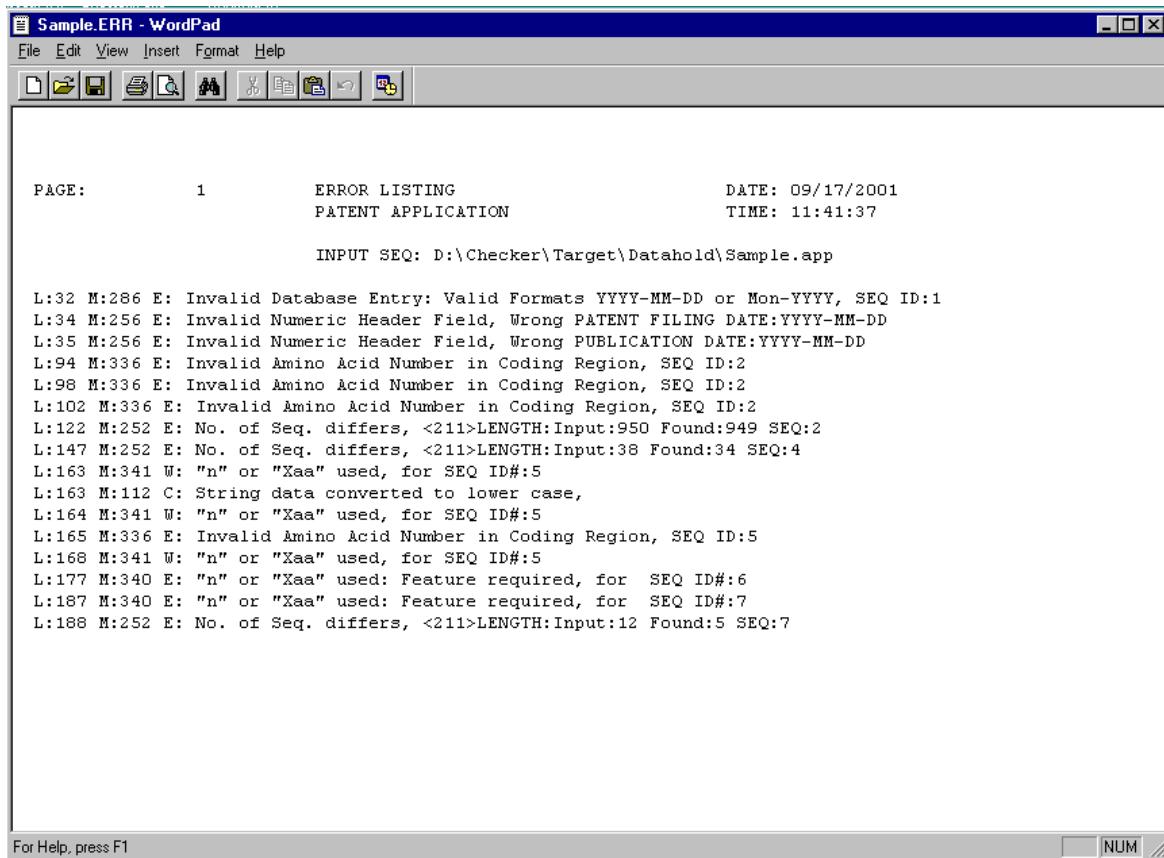


Figure 3-9 Checker Errors Report Opened in Wordpad

3.2.4 Checker View Report Button

To view the Verification Summary Report (VSR):

 Click  on the Checker **Main Menu**.

The VSR, shown in Figure 3-10, is opened in Wordpad or the user's default editor.

```

PAGE: 1 VERIFICATION SUMMARY REPORT DATE: 09/17/2001
PATENT APPLICATION TIME: 11:41:37

INPUT SEQ: D:\Checker\Target\Datohold\Sample.app

GENERAL INFORMATION SECTION
-----
3,<110> Smith, John
4, Smith, Jane
5, Garcia Consulting
7,<120> Test Application Title (CCH00001)
9,<130> CCHO1
11,<140> US/1997/0001
12,<141> 02-MAY-2000
14,<160> 7
16,<170> PatentIn For Windows v. 2

ERRORRED LINES SECTION
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E--> 35 <312> 09-AUG-1998
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E--> 98 10 15 20
E--> 102 25 30 35
E--> 122 accccacacct ccctgaacca 949
E--> 147 Gly Glu

```

For Help, press F1

Figure 3-10 Checker Verification Summary Report Opened in Wordpad

3.2.5 Checker Help Button

To access the Checker online help menu:

Click **Help** on the Checker Main Menu.

The Checker **Online Help** menu, shown in Figure 3-11, displays.

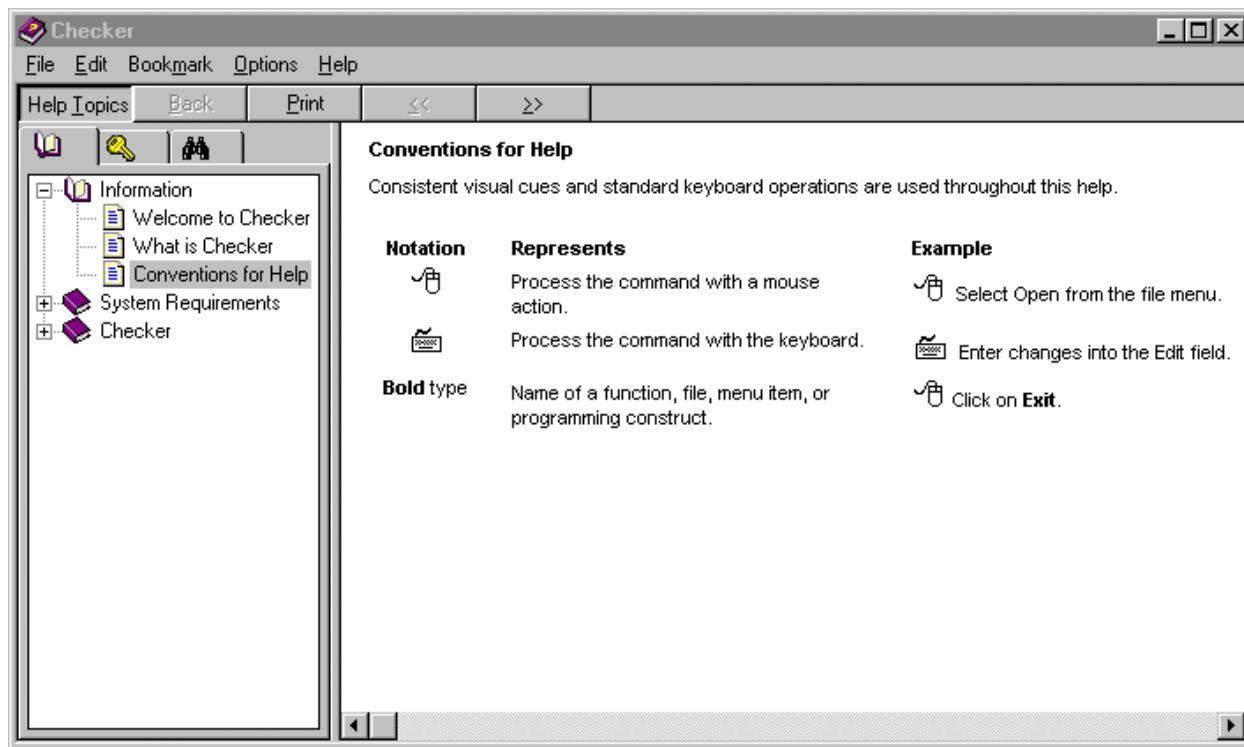


Figure 3-11 Checker Online Help Menu

3.2.6 Checker Exit Button

To exit Checker:

Click **Exit** to exit the **Main Menu** and return to the main Checker application page. From here, you can use the Checker menu bar.

3.2.7 Checker Properties Dialog Box

To view the Properties Dialog Box:

Click **File** or select Alt-F on the keyboard to view the File Menu. Click **Administration** and then **Properties** to view the Properties dialog box. The Properties dialog box allows the user to change the input and output directory paths as well as select an alternate ASCII file editor. To change file editor, the user must specify the path and executable file name of a suitable editor to replace WordPad.

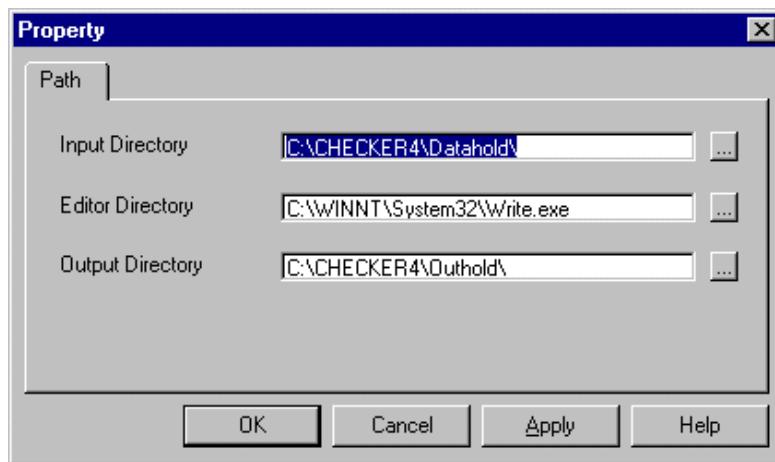


Figure 3-12 Checker Administration Properties Dialog Box

3.2.8 About the Checker Dialog Box

To view the About Checker Dialog Box:

ⓐ Click Help or select Alt-H on the keyboard to view the Help Menu. ⓐ Click About Checker to view the About dialog box. The About Checker dialog displays the version number and release date of the installed Checker application, as well as copyright information. The USPTO will periodically update Checker and the current version and release date will be displayed on the Internet site at the following URL: www.uspto.gov/patents/software.htm.

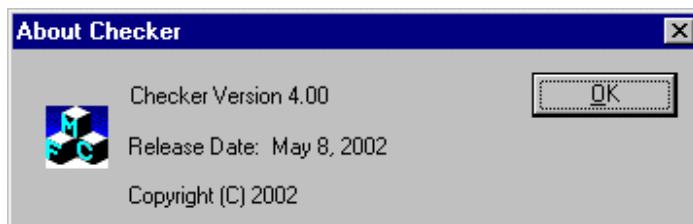


Figure 3-13 About Checker Dialog Box

APPENDIX A LIST OF ACRONYMS

The following acronyms were used in this document.

Acronym	Definition
ABSS	Automated Biotechnology Sequence Search
C.F.R.	Code of Federal Regulations
CRF	Computer Readable Form
MB	Megabytes
PC	Personal Computer
URL	Uniform Resource Locator
USPTO	United States Patent and Trademark Office
VSR	Verification Summary Report

APPENDIX B ERROR MESSAGES

All possible error messages in the Checker software are included in the following table.

The legend for error messages is:

- C:** **Corrected text string(s)**
- E:** **Error as defined in 32 C.F.R. 1.821 – 1.825 rules**
- S:** **System errors**
- W:** **Warning as defined in 32 C.F.R. 1.821 – 1.825 rules**

<u>System Errors</u>	<u>General Messages</u>
100 S: Failure opening input file 101 S: Failure reading input file 102 S: Failure writing output file 103 S: Failure allocating memory	110 C: Removed Non-printable characters 111 C: String data converted to upper case 112 C: String data converted to lower case 113 C: Missing blank line 114 E: Unexpected end of input file
<u>General Header Messages</u>	<u>Alpha Header Messages</u>
200 E: Mandatory header field missing 201 E: Mandatory field data missing 202 E: Value must be an Integer 203 E: Calc# of Seq. differs from actual; <: Input (A), Counted (B)> 204 E: Calc# of Bases differs from actual; <: Input (A), Counted (B)> 205 E: Calc Length of Seq. Differs from actual; <: Input (A), Counted (B)> 210 E: Invalid Number of Sequences 212 E: Invalid or duplicate Sequence ID Number	220 C: Keyword misspelled 222 E: Mandatory Keyword missing 230 E: Invalid or missing General Information 240 E: Invalid or missing Sequence Header field 241 E: Invalid Alpha Header field 242 E: Mandatory header field value missing 243 E: Alpha header field expected 244 E: Invalid beginning of sequence listing

<u>General Header Messages</u> (continued)	<u>Alpha Header Messages</u> (continued)
214 E: Seq.# missing; <: Seq.ID (A)>	245 E: Invalid value of Alpha General Header field
216 E: Seq.#s missing; <: Seq.ID (A) thru (B)>	246 E: Invalid value of Alpha Sequence Header field
218 E: Input File vs. Calc Seq. Length differ; <: Input (A), Calc. (B)>	247 C: Inserted Optional Header Field 248 E: Inserted missing Mandatory Header Field 249 C: Inserted Mandatory Field
<u>Numeric Header Messages</u>	<u>Sequence Data Messages</u>
250 E: Invalid Numeric Identifier	300 W: Intentionally skipped Sequence: Sequence Id ()
252 E: Calc# of Seq. differs from actual; <: Input (A), Counted (B)>	301 E: No Sequence Data was Shown
253 E: Calc# of Bases differs from actual; <: Input (A), Counted (B)>	302 E: Unknown or Misplaced Identifier
254 E: Number of Bases conflicts Running Total; <:Input (A), Counted (B)>	310 E: Wrong or Missing Sequence Type
256 E: Numeric Identifier expected	320 E: Wrong Nucleic Acid Designator
257 W: Sequence data Name/Key Feature Missing	321 E: "t" not allowed in the RNA Sequence
258 E: Mandatory Feature Missing	322 E: Invalid Residue in Sequence
259 E: Field exceeds allowed number of lines	330 E: Wrong Amino Acid Designator
270 C: Current Application Number differs	332 E: Invalid/Missing Amino Acid Numbering
271 C: Current Filing Date differs	333 E: Wrong Sequence grouping; <spacing> 334 E: Invalid Amino Acid in Coding Region

<u>Numeric Header Messages</u> (continued)	<u>Sequence Data Messages</u> (continued)
280 E: Numeric Identified already exists	336 E: Invalid Amino Acid Number in Coding Region
281 E: Numeric fields not Ordered	340 E: "n" or "Xaa" used: Feature required
282 E: Numeric Field Identifier Missing	341 W: "n" or "Xaa" used
283 E: Missing blank Line separator; <before this field identifier>	342 E: Invalid Stop Code On Error
284 E: Blank Line not allowed; <before this field identifier>	344 W: Removed Stop Code On Error
285 E: Invalid Journal Date: Wrong YYY-MM-DD, MMM-YYYY or Season- YYYY	351 E: Sequence data Name/Key Feature Out-of-Range
286 E: Invalid Database Entry Date: Wrong YYYY-MM-DD or MMMM- YYYY	360 E: Sequence data overflow
287 E: Invalid Date; <Wrong YYY-MM- DD or MMMM-YYYY>	361 E: Invalid Split Codon
288 E: Application Number is Repeated; <PRIOR APPLICATION NUMBER:>	
289 E: Numeric Identifier Mission or Out- of-Order; <PRIOR APPLICATION NUMBER>	